

FAIRCHILD

A Schlumberger Company

FDH300/FDLL300

FDH333/FDLL333

High Conductance Low
Leakage Diodes

T-01-09

- BV...150 V (MIN) @ 100 μ A
- IR...1.0 nA (MAX) @ 125 V (FDH300), 3.0 nA (MAX) @ 125 V (FDH333)

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures

Storage Temperature Range	-65°C to +200°C
Maximum Junction Operating Temperature	+175°C
Lead Temperature	+260°C

Power Dissipation (Note 2)

Maximum Total Dissipation at 25°C Ambient	500 mW
Linear Derating Factor (from 25°C)	3.33 mW/°C

Maximum Voltages and Currents

WIV	Working Inverse Voltage	125 V
IO	Average Rectified Current	200 mA
IF	Forward Current Steady State	500 mA
Ir	Recurrent Peak Forward Current	600 mA
Ir(surge)	Peak Forward Surge Current	
	Pulse Width = 1.0 s	1.0 A
	Pulse Width = 1.0 μ s	4.0 A

PACKAGES

FDH300	DO-35
FDH333	DO-35
FDLL300	LL-34
FDLL333	LL-34

If you need this device in the SOT package, an electrical equivalent is available. See FDSO1500 family.

ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC	FDH300		FDH333		UNITS	TEST CONDITIONS
		MIN	MAX	MIN	MAX		
VF	Forward Voltage			0.9	1.15	V	IF = 300 mA
				0.88	1.08	V	IF = 250 mA
		1.0		0.87	1.05	V	IF = 200 mA
				0.86	0.97	V	IF = 150 mA
		0.92		0.83	0.94	V	IF = 100 mA
		0.88		0.80	0.89	V	IF = 50 mA
		0.8				V	IF = 10 mA
		0.75				V	IF = 6.0 mA
		0.68				V	IF = 1.0 mA
IR	Reverse Current			1.0		nA	VR = 125 V
				3.0		μ A	VR = 125 V, TA = 150°C
					500	nA	VR = 125 V, TA = 100°C
C	Capacitance			6.0		pF	VR = 0, f = 1MHz
BV	Breakdown Voltage	150		150		V	IR = 100 μ A

NOTES:

1. The maximum ratings are limiting values above which life or satisfactory performance may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
3. For family characteristic curves, refer to Chapter 4, D2.